

510 Rec'd PCT/PTO 2 1 JUN 1999

FORM PTO-1390  
REV. 5-93US DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICEATTORNEYS DOCKET NUMBER  
P99,1138**TRANSMITTAL LETTER TO THE UNITED STATES  
DESIGNATED/ELECTED OFFICE (DO/EO/US)  
CONCERNING A FILING UNDER 35 U.S.C. 371**

U.S. APPLICATION NO. (if known, see 37 CFR 1.5)

**09/331499**

INTERNATIONAL APPLICATION NO.

INTERNATIONAL FILING DATE

PRIORITY DATE CLAIMED

PCT/DE97/02986

19 December 1997

20 December 1996

TITLE OF INVENTION

**"METHOD AND ARRANGEMENT FOR THE REMOTE FEED OF A NUMBER OF SIMULTANEOUS USERS FROM ONE  
ENERGY SOURCE" (Title as Amended)**

APPLICANT(S) FOR DO/EO/US

Henrik Alms et al.

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☒ This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
- ☒ This express request to begin national examination procedures (35 U.S.C. 371(f)) at any time rather than delay.
- ☒ A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.
- ☒ A copy of International Application as filed (35 U.S.C. 371(c)(2))
  - a. ☒ is transmitted herewith (required only if not transmitted by the International Bureau).
  - b. ☐ has been transmitted by the International Bureau.
  - c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US)
- ☒ A translation of the International Application into English (35 U.S.C. 371(c)(2)).
7. ☒ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))
  - a. ☐ are transmitted herewith (required only if not transmitted by the International Bureau).
  - b. ☐ have been transmitted by the International Bureau.
  - c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
  - d. ☒ have not been made and will not be made.
8. ☐ A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9. ☒ An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)). Executed
10. ☐ A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).

**Items 11. to 16. below concern other document(s) or information included:**

11. ☒ An Information Disclosure Statement under 37 C.F.R. 1.97 and 1.98; (PTO 1449, Prior Art, Search Report).
12. ☒ An assignment document for recording. A separate cover sheet in compliance with 37 C.F.R. 3.28 and 3.31 is included. (See attached envelope)
13. ☒ An Amendment "A" Prior to Action
  - ☐ A SECOND or SUBSEQUENT preliminary amendment.
14. ☐ A substitute specification.
15. ☐ A change of power of attorney and/or address letter.
16. ☒ Other items or information:
  - a. Request for Approval of Drawing Changes (1 sheet).
  - b. Submission of Drawings (2 sheets).
  - c. EXPRESS MAIL NO.: EL188955232US dated June 21, 1999.

## 17. ■ The following fees are submitted:

**BASIC NATIONAL FEE (37 C.F.R. 1.492(a)(1)-(5):**

Search Report has been prepared by the EPO or JPO ..... \$840.00

International preliminary examination fee paid to USPTO (37 C.F.R. 1.482) .. \$670.00

No international preliminary examination fee paid to USPTO (37 C.F.R. 1.482) but  
international search fee paid to USPTO (37 C.F.R. 1.445(a)(2)) ..... \$760.00Neither international preliminary examination fee (37 C.F.R. 1.482) nor international  
search fee (37 C.F.R. 1.445(a)(2)) paid to USPTO ..... \$970.00International preliminary examination fee paid to USPTO (37 C.F.R. 1.482) and all  
claims satisfied provisions of PCT Article 33(2)-(4) ..... \$ 96.00**ENTER APPROPRIATE BASIC FEE AMOUNT =**

CALCULATIONS

PTO USE ONLY

\$840.00

Surcharge of \$130.00 for furnishing the oath or declaration later than ☐ 20 ☐ 30 months  
from the earliest claimed priority date (37 C.F.R. 1.492(e)).

\$

Claims

Number Filed

Number  
Extra

Rate

Total Claims

10

- 20 =

0

X \$ 18.00

\$

Independent Claims

2

- 3 =

0

X \$ 78.00

\$

☒ Multiple Dependent Claims

\$260.00 +

\$

**TOTAL OF ABOVE CALCULATIONS =**

\$840.00

Reduction by 1/2 for filing by small entity, if applicable. Verified Small Entity statement must  
also be filed. (Note 37 C.F.R. 1.9, 1.27, 1.28)

\$

**SUBTOTAL =**

\$

Processing fee of \$130.00 for furnishing the English translation later than ☐ 20 ☐ 30 months  
from the earliest claimed priority date (37 CFR 1.492(f)).

\$

**TOTAL NATIONAL FEE =**

\$840.00

Fee for recording the enclosed assignment (37 C.F.R. 1.21(h). The assignment must be  
accompanied by an appropriate cover sheet (37 C.F.R. 3.28, 3.31). \$40.00 per property

\$

**TOTAL FEES ENCLOSED =**

\$840.00

Amount to be  
refunded

\$

charged

\$

a. ■ A check in the amount of \$ 840.00 to cover the above fees is enclosed.b. ☐ Please charge my Deposit Account No. \_\_\_\_\_ in the amount of \$ \_\_\_\_\_ to cover the above fees.  
A duplicate copy of this sheet is enclosed.c. ■ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any  
overpayment to Deposit Account No. 08-2290. A duplicate copy of this sheet is enclosed.NOTE: Where an appropriate time limit under 37 C.F.R. 1.494 or 1.495 has not been met, a petition to revive (37 C.F.R. 1.137(a) or (b)) must be  
filed and granted to restore the application to pending status.

SEND ALL CORRESPONDENCE TO:

Hill & Simpson  
A Professional Corporation  
85th Floor Sears Tower  
Chicago, Illinois 60606

SIGNATURE

David R. Metzger

NAME

32,919

Registration Number

-1-

BOX PCT

IN THE UNITED STATES DESIGNATED/ELECTED OFFICE  
OF THE UNITED STATES PATENT AND TRADEMARK OFFICE  
UNDER THE PATENT COOPERATION TREATY-CHAPTER II

5

**AMENDMENT "A" PRIOR TO ACTION**

APPLICANT(S): Henrik Alms et al.  
ATTORNEY DOCKET NO.: P99,1138  
INTERNATIONAL APPLICATION NO.: PCT/DE97/02986  
INTERNATIONAL FILING DATE: 19 December 1997

10

INVENTION: "METHOD AND ARRANGEMENT FOR THE  
REMOTE FEED OF A NUMBER OF  
SIMULTANEOUS USERS FROM ONE ENERGY  
SOURCE" (Title as Amended)

Assistant Commissioner for Patents

15

Washington, D.C. 20231

Sir:

Applicants herewith amend the above-referenced PCT application,  
and request entry of the Amendment prior to examination on the United  
States National Examination Phase.

20

**IN THE SPECIFICATION:**

On page 1, cancel the title and text above line 5, and insert the  
following above line 4:

--TITLE

25

**METHOD AND ARRANGEMENT FOR THE REMOTE FEED OF A  
NUMBER OF SIMULTANEOUS USERS FROM ONE ENERGY SOURCE**

**BACKGROUND OF THE INVENTION--**

in line 5, preceding "invention" insert --present--, and cancel "and to  
an arrangement";

in line 6, cancel "plurality" substitute --number-- therefor, and after  
"source" cancel "." and insert --, and to an arrangement  
operating according to the method.--;

in line 10, cancel "appertaining" substitute --pertaining-- therefor;

5 in line 11, cancel "the" substitute --a-- therefor, and cancel ", thus,";

in line 13, cancel "the" substitute --a-- therefor, and cancel "an"  
substitute --a-- therefor;

in line 14, cancel "dimensioning" substitute --sizing-- therefor;

10 in line 15, cancel "over-dimensioned" substitute --over-sized--  
therefor;

in line 16, cancel "dimensioning" substitute --sizing-- therefor;

in line 17, cancel "plurality" substitute --number-- therefor, and  
cancel "meets" substitute --leads-- therefor;

above line 20, insert a centered heading:

15 **--SUMMARY OF THE INVENTION--**;

in line 20, preceding "invention" insert --present--, and cancel  
"specify" substitute --provide-- therefor;

in line 21, cancel "plurality" substitute --number-- therefor;

20 in lines 22-23, cancel "[...] is equipped. Moreover, a suitable  
arrangement is to be specified.--;

cancel lines 24-26, substitute the following therefor:

25 --This object is achieved in accordance with the method of the  
present invention. It is another object of the present  
invention to provide an arrangement according to the  
method.--;

in line 28, cancel "this" substitute --the energy source-- therefor.

On page 2, in line 3, cancel "The check of" substitute --Checking--  
therefor, and cancel "a current limitation" substitute --limiting  
the current-- therefor;

30 cancel lines 10-15;

below line 9, insert the following:

**--DESCRIPTION OF THE DRAWINGS**

Fig. 1 is a schematic diagram of a power supply constructed and operated in accordance with the invention.

5 Fig. 2 shows a time curve for explaining the connection event of a user in accordance with the invention.

Fig. 3 shows a time curve for explaining the overall connection event for a number of users in accordance with the invention.--;

10 above line 16, insert a centered heading:

**--DETAILED DESCRIPTION OF THE PRESENTLY PREFERRED EMBODIMENTS--;**

in line 16, after "shows" cancel "the" substitute --a-- therefor;

in line 17, after "supply" insert --10--;

15 in line 25, cancel "involved" substitute --employed-- therefor, and cancel "limitation" substitute --limiting-- therefor;

in line 26, after "shifted" insert a period, and cancel "and these" substitute --These-- therefor;

in line 27, cancel "through";

20 in line 28, cancel "Patent WPHO4M/2784882" substitute --East German Patent No. DD 250 649-- therefor;

in line 30, after "switch" insert --S<sub>1</sub> through S<sub>n</sub>--;

in line 31, after "sources" insert --Q11 through QIn--.

25 On page 3, in line 1, cancel "thereto" substitute --to the control ST-- therefor;

in line 3, after "controller" insert --ST--;

in line 5, cancel "(first)" substitute --first-- therefor;

in line 6, cancel "subscriber, this" substitute --subscriber T1. This-- therefor;

30 in line 7, preceding "also" insert --is--, and cancel "being";

in line 10, cancel " $I_{\text{norma}}$ " substitute -- $I_{\text{norma}}$ -- therefor;  
in line 15, after "subscribers" insert --T1 through T8 (not shown)--;  
in line 16, cancel "T1 -" substitute --T1,-- therefor;  
in line 17, after "described" cancel "-";  
5 in line 18, after "value" insert -- $I_{\text{max}}$ --;  
in line 19, cancel "TL2" substitute --T2-- therefor;  
in line 23, after "current" insert -- $I_{\text{max}}$ --;  
in line 28, after "current" insert -- $I_{\text{max}}$ --.

On page 4, in line 2, after "supply" insert --10--;

10 in line 3, cancel "As a modification" substitute --In an embodiment--  
therefor, and cancel "for shortening" substitute --to shorten--  
therefor;

in line 4, cancel "a respectively";

in line 7, cancel "1" substitute --one-- therefor;

15 in line 8, cancel "dependent" substitute --depending-- therefor;

in line 10, after "currents" insert -- $I_1$  through  $I_n$ --.

below line 11, insert the following paragraph:

--Although modifications and changes may be suggested by those  
of ordinary skill in the art, it is the intention of the inventors to embody  
20 within the patent warranted hereon all changes and modifications as  
reasonably and properly come within the scope of their contribution to the  
art.--.

**IN THE CLAIMS:**

Please cancel claim 5.

Please cancel claims 1-4 and 6-10 and substitute the following claims 11-19 therefor:

- 5            11.    A method for the remote feed of a number of simultaneous users from one energy source, the method comprising the steps of:
- connecting a user to the energy source;
- supplying an initial feed current limited to a maximum value to the user in the connection phase;
- 10           measuring the feed current that is supplied to the user;
- limiting the feed current to a standard value, given an error-free user line and after a waiting time; and
- successively repeating the above steps for further users.
12.    The method according to claim 11, wherein respective
- 15           groups of a number of users are simultaneously connected, wherein the feed current for each user is limited to the maximum value; and wherein a maximum, overall feed current available is not exceeded.
13.    The method according to claim 11, further comprising the step of:
- 20           disconnecting a user that continues to use the maximum value of the feed current after the expiration of the waiting time.
14.    The method according to claim 11, further comprising the step of:
- 25           allocating the maximum value of the feed current to a user that continues to use the maximum value of the feed current after the expiration of the waiting time, wherein a current reserve is available.

15. The method according to claim 11, further comprising the step of:  
limiting the feed current of the user to the standard value after the  
waiting time.

16. The method according to claim 11, further comprising the  
5 step of:  
periodically checking a faulty network termination unit of a user with  
the maximum value of the feed current.

17. The method according to claim 11,  
wherein  $I_{\text{rmax}} = I_{\text{max}} + (n-1) I_{\text{standa}}$ ; and wherein  
10  $I_{\text{rmax}}$  = a maximum feed current made available overall,  
 $I_{\text{max}}$  = a feed current made maximally available to an  
individual user,  
 $I_{\text{standa}}$  = a feed current made available to a user after the  
connection phase, and  
15  $n$  = a number of the users.

18. The method according to claim 17, wherein  $I_{\text{rmax}} = m \times I_{\text{max}} +$   
( $n-m$ )  $I_{\text{standa}}$ , wherein  $m$  is a number of members of a group of users and is  
less than  $n$ .

19. An arrangement for the remote feed of a number of users  
20 from one energy source, comprising:  
an energy source;  
a number of series circuits connected to the energy source, each  
series circuits having:  
a controllable current source connected to a respective user;  
25 and  
a measuring instrument to connected to a respective user;  
and



5 a control for monitoring the values of feed currents to the users and  
for setting current limitation values of the controllable current  
sources; wherein the values of the feed currents are  
supplied from the measuring instruments; and wherein the  
feed current is initially set to a maximum value during the  
connection phase and is limited to a standard value after a  
waiting time.

20. The arrangement according to claim 19, wherein the  
arrangement is provided for a remote feed of a number of ISDN users.

10 **IN THE ABSTRACT:**

On page 7, in line 1, cancel "**ABSTRACT**" substitute the following  
centered heading therefor:

**--ABSTRACT OF THE DISCLOSURE--;**

cancel lines 2-12, substitute the following abstract therefor:

15 -- A method and arrangement for the remote feed of a number of  
identical users from one energy source. A feed current limited to a  
maximum value is initially made available to a user in the connection  
phase. The feed current that flows is then measured and, given an error-  
free subscriber line, the feed current is limited to a standard value after a  
20 waiting time, in that, subsequently, the further users are connected and  
supplied with feed current in the same way.--

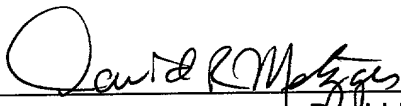
**REMARKS:**

25 The present Amendment revises the specification, drawings and  
claims to conform to United States patent practice, before examination of  
the present PCT application in the United States National Examination  
Phase. All of the changes are editorial and no new matter is added  
thereby. The cancellation of claims 1-4 and 6-10, in favor of new claims  
11-19, has been made solely for convenience, since the amount of

bracketing and underlining necessary to editorially amend claims 1-4 and 6-10 in order to conform to United States patent practice would have been excessive and burdensome. The cancellation of claims 1-4 and 6-10 is therefore not intended to be a surrender of any of the subject matter of those claims. Claim 5 has been canceled under this Amendment.

Early examination on the merits is respectfully requested.

Respectfully submitted,

  
\_\_\_\_\_  
(Reg. No. 32,919)  
David R. Metzger  
Hill & Simpson  
A Professional Corporation  
85<sup>th</sup> Floor - Sears Tower  
Chicago, Illinois 60606  
(312) 876-0200 ext. 3084  
Attorneys for Applicant

## SPECIFICATION

## METHOD AND ARRANGEMENT FOR THE REMOTE FEED OF A PLURALITY OF IDENTICAL USERS FROM ONE ENERGY SOURCE

The invention is directed to a method and to an arrangement for the remote feed of a plurality of identical users from one energy source.

Power supplies that supply subscribers, for example ISDN subscribers, via a network termination unit (NT) are provided in telephone networks. The conditions for the currents to be made available are prescribed in the appertaining standards of Deutsche Telekom AG, ITU and ETSI. In the connection phase, thus, each subscriber (line) must be capable of being supplied with a limited current (for example up to 45 mA), whereas a significantly lower current suffices in the normal operating case. Given an "worst case" dimensioning wherein all users require the maximum current, the power supply is highly over-dimensioned for normal operation. A dimensioning that is based on a maximum traffic value, i.e. on a maximum plurality of active users, meets only to an unsatisfactory reduction of the supply capacity to be made available given high traffic values and is often not allowed at all.

An object of the invention is to specify a method for the remote feed of a plurality of users that requires a low supply capacity of the energy source. [...] is equipped. Moreover, a suitable arrangement is to be specified.

This object is achieved by a power supply according to claim 1.

Advantageous developments of the invention are recited in the subclaims.

The particular advantage is comprised in the reduction of the peak load of the energy source. As a result thereof, this can be realized smaller and with lower costs.

The peak load is reduced in that the connection of the users, for example telephone subscribers, ensues successively. The current required

is initially higher in the turn-on phase; however, it then drops to a significantly lower value.

The check of the flowing currents and a current limitation to a standard value assures that the power supply of the undisturbed subscriber connections is assured in case of malfunction.

An intelligent control checks the subscriber terminals, controls the current limitation and repeatedly implements checks of the subscriber terminals, whereby the point is to see that the overall current available is not exceeded.

An exemplary embodiment of the invention is explained in greater detail with reference to Figures.

Shown are:

Fig. 1 a schematic diagram of the power supply;

Fig. 2 the connection event of a user; and

Fig. 3 the overall connection event for a plurality of users.

Figure 1 shows the schematic circuit diagram of the inventive power supply.

A converter WA generates a specific DC voltage that is made available to the subscribers T1 through Tn via controllable current sources Q11 through QIn and a respectively following measuring means ME1 through MEn, being made available via connecting lines L1 through Ln. The respectively flowing currents  $I_1$  through  $I_n$  are limited by the controllable current sources Q11 through QIn. The controllable current sources can be arbitrarily constructed. Constant current sources constructed with amplifier elements are often involved, their limitation use being capable of being shifted and these sources connecting the voltage of the energy source through below the limiting use. Such a controllable current source is disclosed by Patent WPHO4M/2784882.

The current source can also be completely blocked, this being symbolically shown in Figure 1 as a switch. A control ST determines the activation of the current limitation at the individual current sources. Measured

values of the currents actually flowing are supplied thereto by the measuring instruments ME1 through MEn.

A micro-computer system is suitable as controller. The measured values are digitalized before processing.

Figure 2 shows the turn-on event at the (first) subscriber T1. First, an imaginary current  $I_r$  is made available to this subscriber, this imaginary current  $I_r$  also being capable of flowing given an active subscriber in the turn-on phase or given a faulty network termination unit and corresponding to a maximum value  $I_{max}$  (45 mA). When the network termination unit is error-free, then the current will drop to a normal value  $I_{noma}$  (20 mA) after a waiting time  $T_w$ . The current limitation is then reduced to the standard value  $I_{standa}$  that either lies somewhat above the measured value or corresponds to a constant empirical value (a substantially lower current  $I_{normi}$  flow given an inactive subscriber).

Figure 3 shows the overall turn-on event given eight subscribers. First, the maximum value  $I_r = I_{max}$  is made available to the first subscriber T1 - as described -, this dropping to the standard value  $I_{standa}$  given an error-free subscriber line. The maximum value is then made available to the second subscriber TL2 via the line L2, whereby the currents  $I_r$  made available overall add up, as can be seen from Figure 3.

When the last subscriber T8 has the maximum current  $I_{max}$  made available to him via the line L8,  $I_r$  reaches the maximum  $I_{rmax}$ . This imaginary overall current corresponds to the maximum capacity of the converter.  $I_r$  can be reduced to  $8 \times I_{standa}$  when all terminals are error-free.

When a terminal is faulty, the maximum current  $I_{max}$  can be made available thereto periodically for testing purposes. It is also possible to dimension the converter such that two or more malfunctioning terminals can also be simultaneously supplied with the predetermined maximum current.

When a current on the order of magnitude of  $I_{max}$  also constantly flows at a subscriber after the turn-on phase, then the subscriber is disconnected and a new connection attempt is periodically started. As an alternative, the

constant supply with the maximum value  $I_{\max}$  is possible when the power reserve of the power supply allows this.

As a modification, it is also possible for shortening the turn-on event to a respectively make the maximum current  $I_{\max}$  available to the individual subscribers of a group, for example T1, T2, T3 without exceeding  $I_{\max}$ . In the recited example, thus, four subscribers can initially be simultaneously connected (180 mA), then followed by another two or two times 1 subscriber (dependent on the design of the maximum feed current).

After the turn-on phase, the subscriber terminals can continue to be monitored by measuring the feed currents and can be potentially disconnected and reconnected for checking.

**PATENT CLAIMS**

1. Method for the remote feed of a plurality of simultaneous users (T1 through Tn) from one energy source (WA), characterized in that a feed current limited to a maximum value ( $I_{\max}$ ) is initially made available to one user (T1) in the connection phase; in that the feed current ( $I_1$ ) that flows is measured and, given an error-free subscriber line, the feed current is limited to a standard value ( $I_{\text{standa}}$ ) after a waiting time (TW); in that, subsequently, the further users (T2 through Tn) are connected in the same way and supplied with feed current ( $I_2$  through  $I_n$ ).

2. Method according to claim 1, characterized in that respective groups (T1, T2, T3) of a plurality of subscribers are simultaneously connected, whereby the feed current for each user is limited to the maximum value ( $I_{\max}$ ) and it is assured that a maximum, overall feed current ( $I_{\text{rmax}}$ ) available is not exceeded.

3. Method according to claim 1 or claim 2, characterized in that a subscriber (T1...) that continues to use the maximum value ( $I_{\max}$ ) of the feed current after the expiration of the waiting time (Tw) is disconnected.

4. Method according to claim 1 or claim 2, characterized in that the maximum feed current ( $I_{\max}$ ) given a current reserve available is allocated to a subscriber (T1,...) that continues to use the maximum value ( $I_{\max}$ ) of the feed current after the expiration of the waiting time (Tw).

5. Method according to claim 1 or claim 2, characterized in that the feed current of the subscriber (T1,...) is limited to the standard value ( $I_{\text{standa}}$ ) after the waiting time (Tw).

6. Method according to one of the preceding claims, characterized in that the faulty network termination unit of a subscriber is periodically checked with the maximum value ( $I_{\max}$ ) of the feed current.

7. Method according to one of the claims 1 through 6, characterized in that  $I_{rmax} = I_{max} + (n-1) I_{standa}$ , whereby

$I_{rmax}$  = the maximum feed current made available overall;

$I_{max}$  = the feed current made maximally available to an individual subscriber,

$I_{standa}$  = the feed current made available to a subscriber after the connection phase, and

$n$  = the plurality of the subscribers.

8. Method according to one of the claims 1 through 6, characterized in that  $I_{rmax} = m \times I_{max} + (n-m) I_{standa}$ , whereby  $m$  is the plurality of members of a group and is less than  $n$ .

9. Arrangement for the remote feed of a plurality of users (T1 through Tn) having an energy source (WA) and a plurality of series circuits connected thereto, each of said series circuits respectively comprising a controllable current source (QT1 through Qtn) and a measuring instrument (ME2 through MEn) to which a respective user is connected, and having a control (ST) for monitoring feed currents ( $I_1$  through  $I_n$ ) and for setting current limitation values of the current sources (QT1 through QTn) to which the values of the feed currents ( $I_1$  through  $I_n$ ) are supplied from the measuring instruments (ME2 through MEn).

10. Arrangement according to claim 9, characterized in that said arrangement is provided for the remote feed of a plurality of ISDN subscribers (T1 through Tn).



**ABSTRACT****Method And Arrangement For The Remote Feed Of A Plurality Of Identical Users From One Energy Source**

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Method and arrangement for the remote feed of a plurality of identical users from one energy source, whereby a feed current limited to a maximum value ( $I_{\max}$ ) is initially made available to a user (T1) in the connection phase, the feed current ( $I_1$ ) that flows is then measured and, given an error-free subscriber line, the feed current is limited to a standard value ( $I_{\text{standa}}$ ) after a waiting time ( $T_w$ ), in that, subsequently, the further users (T2 through Tn) are connected and supplied with feed current ( $I_2$  through  $I_n$ ) in the same way.

Fig. 3

-1-

BOX PCT

IN THE UNITED STATES DESIGNATED/ELECTED OFFICE  
OF THE UNITED STATES PATENT AND TRADEMARK OFFICE  
UNDER THE PATENT COOPERATION TREATY-CHAPTER II

5

**REQUEST FOR APPROVAL OF DRAWING CHANGES**

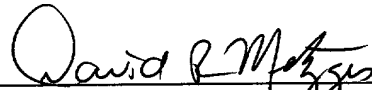
APPLICANT(S): Henrik Alms et al.  
ATTORNEY DOCKET NO.: P99,1138  
INTERNATIONAL APPLICATION NO.: PCT/DE97/02986  
INTERNATIONAL FILING DATE: 19 December 1997  
INVENTION: "METHOD AND ARRANGEMENT FOR THE REMOTE FEED  
OF A NUMBER OF SIMULTANEOUS USERS FROM ONE  
ENERGY SOURCE" (Title as Amended)

Assistant Commissioner for Patents  
Washington, D.C. 20231

S I R:

Applicants herewith request approval of the drawing changes in Figures 1  
and 2 as shown on the drawing copies marked in red attached hereto.

Submitted by,



(Reg. 32,919)

David R. Metzger  
HILL & SIMPSON

A Professional Corporation  
85<sup>th</sup> Floor - Sears Tower  
Chicago, Illinois 60606

Telephone: 312/876-0200 - Ext. 3084  
Attorneys for Applicant(s)

FIG 1

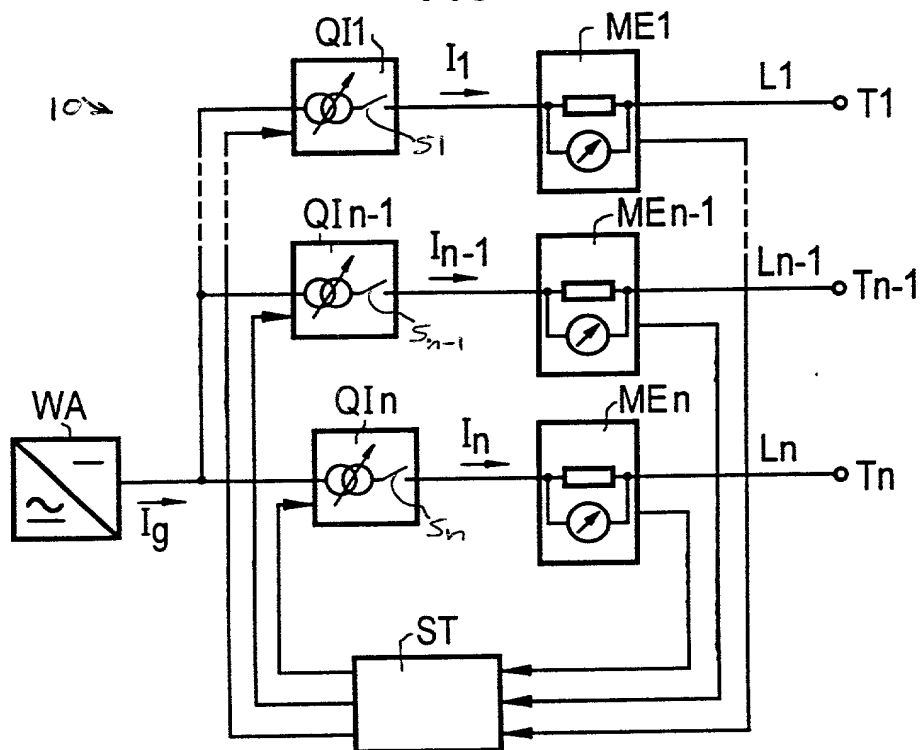
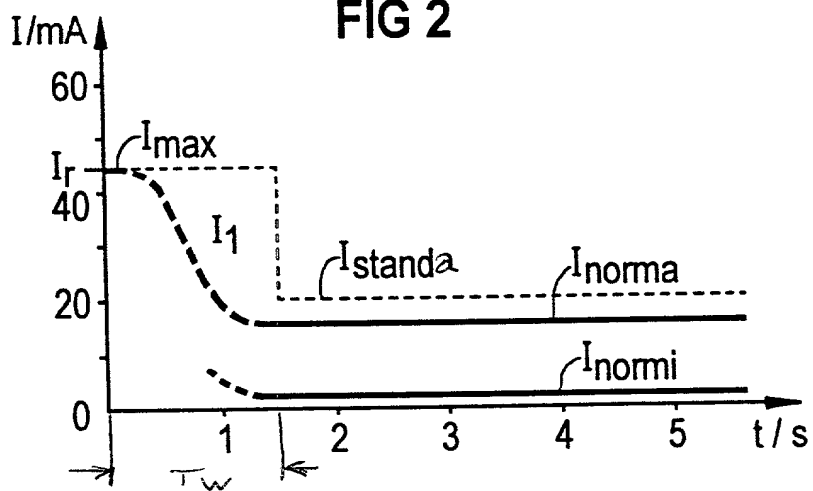


FIG 2



1 / 2

FIG 1

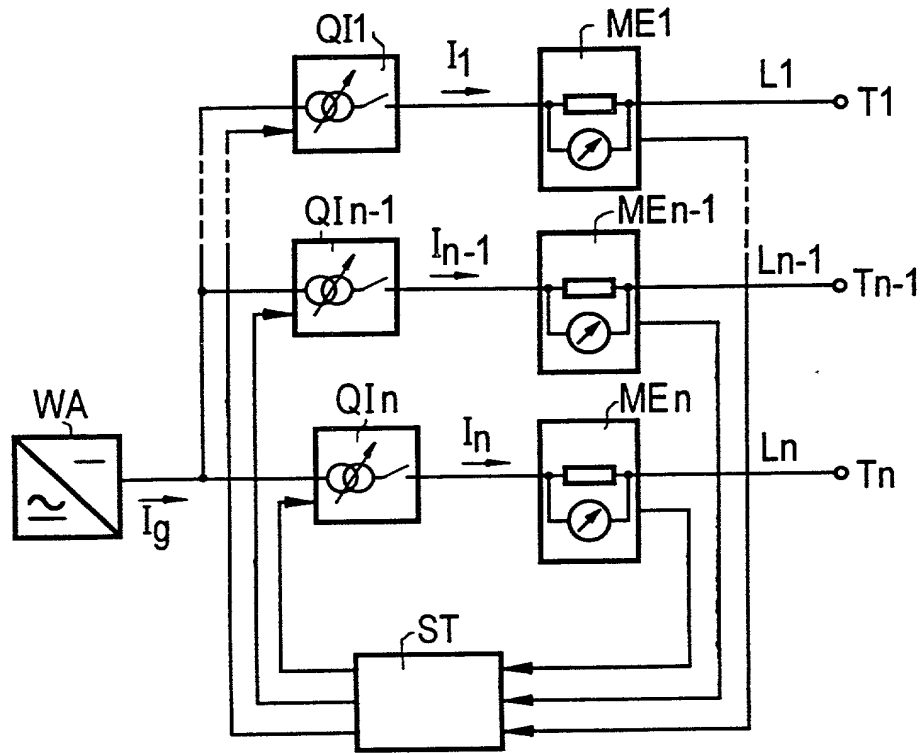


FIG 2

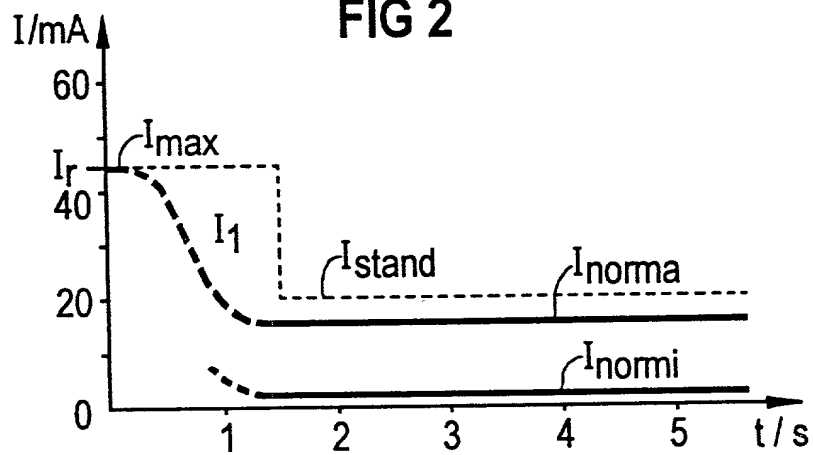
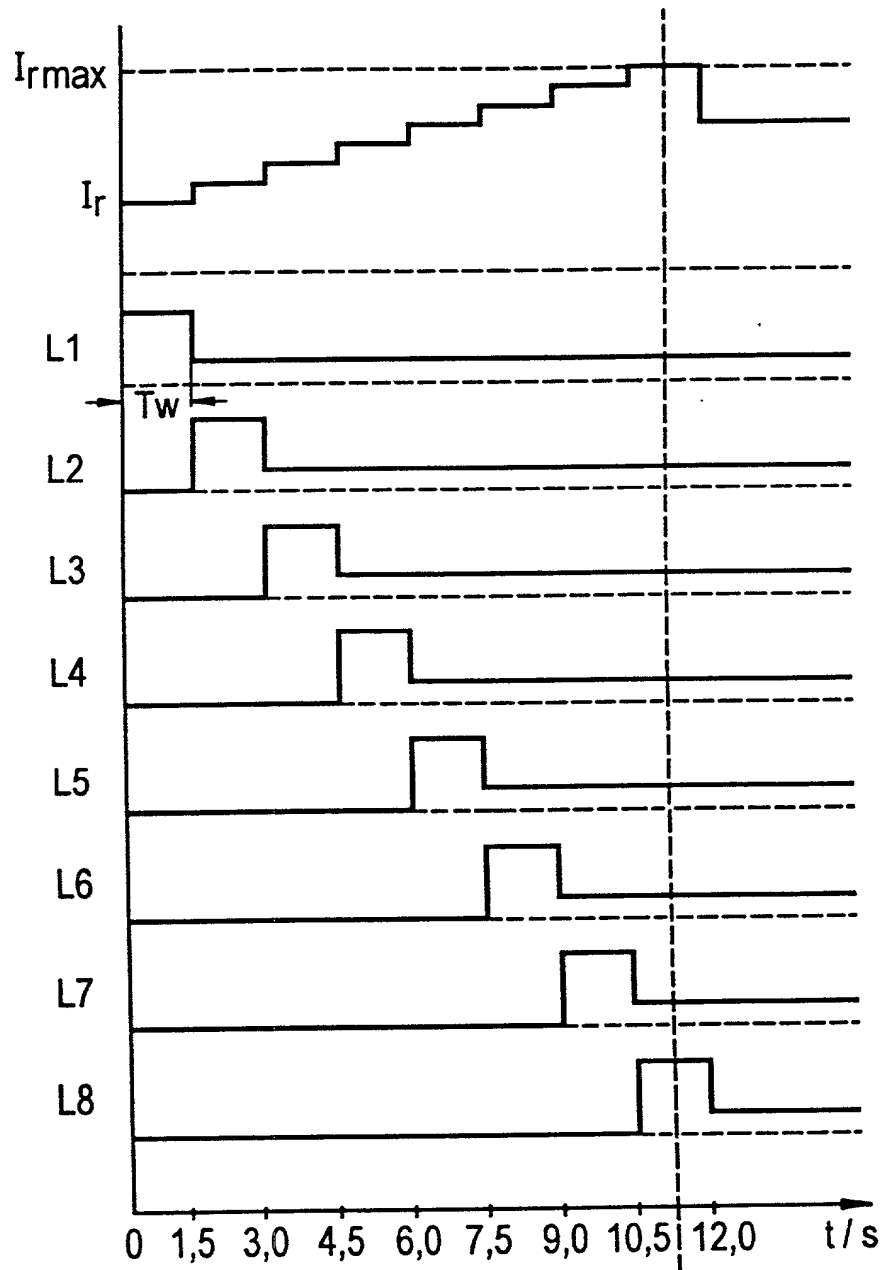


FIG 3



## Patent and Trademark Office-U.S. DEPARTMENT OF COMMERCE

# German Language Declaration

Prior foreign applications  
Priorität beansprucht

Priority Claimed

196 53 625.1    Germany    20. Dezember 1996  
(Number)    (Country)    (Day Month Year Filed)  
(Nummer)    (Land)    (Tag Monat Jahr eingereicht)

☒    ☐  
Yes    No  
Ja    Nein

\_\_\_\_\_  
(Number)    (Country)    (Day Month Year Filed)  
(Nummer)    (Land)    (Tag Monat Jahr eingereicht)

☐    ☐  
Yes    No  
Ja    Nein

\_\_\_\_\_  
(Number)    (Country)    (Day Month Year Filed)  
(Nummer)    (Land)    (Tag Monat Jahr eingereicht)

☐    ☐  
Yes    No  
Ja    Nein

Ich beanspruche hiermit gemäss Absatz 35 der Zivilprozessordnung der Vereinigten Staaten, Paragraph 120, den Vorzug aller unten aufgeführten Anmeldungen und falls der Gegenstand aus jedem Anspruch dieser Anmeldung nicht in einer früheren amerikanischen Patentanmeldung laut dem ersten Paragraphen des Absatzes 35 der Zivilprozessordnung der Vereinigten Staaten, Paragraph 122 offenbart ist, erkenne ich gemäss Absatz 37, Bundesgesetzbuch, Paragraph 1.56(a) meine Pflicht zur Offenbarung von Informationen an, die zwischen dem Anmeldedatum der früheren Anmeldung und dem nationalen oder PCT internationalen Anmeldedatum dieser Anmeldung bekannt geworden sind.

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §122, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application.

(Application Serial No.)  
(Anmeldeseriennummer)

(Filing Date)  
(Anmeldedatum)

(Status)  
(patentiert, anhängig,  
aufgegeben)

(Status)  
(patented, pending,  
abandoned)

(Application Serial No.)  
(Anmeldeseriennummer)

(Filing Date)  
(Anmeldedatum)

(Status)  
(patentiert, anhängig,  
aufgeben)

(Status)  
(patented, pending,  
abandoned)

Ich erkläre hiermit, dass alle von mir in der vorliegenden Erklärung gemachten Angaben nach meinem besten Wissen und Gewissen der vollen Wahrheit entsprechen, und dass ich diese eidesstattliche Erklärung in Kenntnis dessen abgebe, dass wissentlich und vorsätzlich falsche Angaben gemäss Paragraph 1001, Absatz 18 der Zivilprozessordnung der Vereinigten Staaten von Amerika mit Geldstrafe belegt und/oder Gefängnis bestraft werden koennen, und dass derartig wissentlich und vorsätzlich falsche Angaben die Gültigkeit der vorliegenden Patentanmeldung oder eines darauf erteilten Patentes gefährden können.

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## German Language Declaration

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POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. (list name and registration number)

And I hereby appoint

Messrs. John D. Simpson (Registration No. 19,842), Lewis T. Steadman (17,074), William C. Stueber (16,453), P. Phillips Connor (19,259), Dennis A. Gross (24,410), Marvin Moody (16,549), Steven H. Noll (28,982), Brett A. Valiquet (27,841), Thomas I. Ross (29,275), Kevin W. Guynn (29,927), Edward A. Lehmann (22,312), James D. Hobart (24,149), Robert M. Barrett (30,142), James Van Santen (16,584), J. Arthur Gross (13,615), Richard J. Schwarz (13,472) and Melvin A. Robinson (31,870), David R. Metzger (32,919), John R. Garrett (27,888) all members of the firm of Hill, Steadman & Simpson, A Professional Corporation.

Telefongespräche bitte richten an:  
(Name und Telefonnummer)

Direct Telephone Calls to: (name and telephone number)

312/876-0200  
Ext. \_\_\_\_\_

Postanschrift:

Send Correspondence to:

**HILL, STEADMAN & SIMPSON**  
**A Professional Corporation**  
**85th Floor Sears Tower, Chicago, Illinois 60606**

Voller Name des einzigen oder ursprünglichen Erfinders:		Full name of sole or first inventor:	
<b>Henrik Alms</b>			
Unterschrift des Erfinders	Datum	Inventor's signature	Date
<i>Henrik Alms</i>	<i>06.01.98</i>		
Wohnsitz		Residence	
<b>D-17489 Greifswald, Germany</b>		<i>DER</i>	
Staatsangehörigkeit		Citizenship	
<b>Bundesrepublik Deutschland</b>			
Postanschrift		Post Office Address	
<b>Rudolf-Petersh.-Allee 20</b>			
<b>D-17489 Greifswald</b>			
<b>Bundesrepublik Deutschland</b>			
Voller Name des zweiten Miterfinders (falls zutreffend):		Full name of second joint inventor, if any:	
<b>Frank-Dieter Richter</b>			
Unterschrift des Erfinders	Datum	Second Inventor's signature	Date
<i>Frank-Dieter Richter</i>	<i>12.11.98</i>		
Wohnsitz		Residence	
<b>D-17489 Greifswald, Germany</b>		<i>DER</i>	
Staatsangehörigkeit		Citizenship	
<b>Bundesrepublik Deutschland</b>			
Postanschrift		Post Office Address	
<b>Hebbelstr. 31</b>			
<b>D-17489 Greifswald</b>			
<b>Bundesrepublik Deutschland</b>			

(Bitte entsprechende Informationen und Unterschriften im Falle von dritten und weiteren Miterfindern angeben).

(Supply similar information and signature for third and subsequent joint inventors).